Issue 4

July 2004

Environmental Public Health Tracking Program
Utah Department of Health

UTAH DEPARTMENT OF HEALTH

EPHTP Newsletter

Update: EPHTP Pilot Projects

The EPHTP is conducting three pilot projects to achieve the following objectives:

- to build capacity in specific health department programs
- to improve services to local health department and residents
- to build partnerships for the development of the EPHTP
- to inform the process of EPHTP development.

The three pilot projects are:

- Environmental Exposures and Birth Defects in Utah
- Cancer Incidence Query Module
- Follow-up investigation of Cancer and Ground Water Contamination in Sunset and Clinton

Environmental Exposures and Birth Defects in Utah

The EPHTP will work with the Utah Birth Defect Network (UBDN) to build the capacity to investigate whether environmental factors are associated with birth defects causation. If associations are found between environmental exposures and specific birth defects, primary prevention strategies will be employed. The goals for this project are to establish a permanent relationship with the UBDN and develop a set of semi-automated analytical tools that can be shared by both programs for data analysis. The EPHTP staff are currently in the process of standardizing the birth defects data. Standardizing the data will allow the EPHT program to analyze, geocode, and compare the data. The data will be brought together into a geo-database, where users will be able to populate the databases so applications such as counting the number of points that fit into an area can be done.

The first phase of this pilot project will be to geocoding all birth defect cases and analyze predominant birth defect classes for spatial and temporal variances. EPHTP staff have completed geocoding 75% of the 37,000 records. In addition, EPHTP staff are currently in the process of geocoding the vital records birth data, which contains 550,000 records. EPHTP staff will then look at ecologic risk factors that are available such as the age of the house or education levels. Depending on the findings of the statistical analyses, a second phase may commence, linking relevant environmental hazard data with birth defects data. The information gained regarding environmental exposures and the associated public health consequences will be used to formulate guidelines for both primary and secondary prevention.

Inside this issue:

Meetings and Dates:

- *Technical Workgroup Meeting*
  September 2, 2004 10:00-12:00
  UDOH, Room 114
- *Policy Workgroup Meeting*
  September 23, 2004 10:00-12:00
  UDOH, Room 215
- *Planning Consortium*
  October 26, 2004 10:00-12:00
  UDOH, Room 114

Cancer Incidence Query Module

Currently, the health department response to cancer-related calls from concerned citizens is time-consuming and laborious; information from the caller needs to be collected, cancer and environmental monitoring data need to be obtained, and health education materials need to be prepared.

The EPHTP can improve the quality and timeliness of responses to cancer-related calls from concerned citizens, by partnering with Indicator Based Information System for Public Health (IBIS-PH). IBIS-PH is an innovative web-based system for disseminating public health information within a context that improves understanding of the information. IBIS-PH received funding from the Utah EPHTP to design, implement, test and deploy a web-based data query tool that will allow local and state health officials to obtain statistics on the spatial distribution of excess morbidity due to cancer incidence.

The new IBIS interface will look at Cancer Incidence at the census tract level. The Cancer Incidence Query interface will be a secure web-based query tool for public health officials to obtain statistics on spatial distribution of cancer cases. This tool will allow users to tabulate cancer incidence data for small geographies, tabulate, age-adjusted rates using the U.S. 2000 standard population and tabulate standardized morbidity ratios using the state of Utah (minus the specific geographic area) as the standard population for all standard cancer sites. In addition, the module will flag geographic areas with higher-than-expected cancer morbidity across multiple time periods. Help screens and contextual information will be included to help users interpret the results of their data queries. IBIS staff are continuing to develop the Cancer Incidence Query module and the goal is to have a test version operational by September. For more information about IBIS-PH, go to www.ibis.health.utah.gov.

Follow-up investigation of Cancer and Ground Water Contamination in Sunset and Clinton

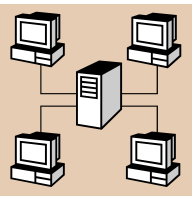
The Sunset/Clinton Cancer study is a follow-up study on cancer cases possibly related to exposure to contaminants in ground water. The original study, completed in September 2003, was conducted at the request of the Davis County Health Department and compared the cancer rates in these communities between 1973-1999 with that of the state cancer rates. The goals of this follow-up study are to expand the original study by using different methodology and by incorporate new technology. EPHTP staff have met and are collaborating with the Utah Department of Environmental Quality (UDEQ), the Hill Air Force Base Restoration Advisory Board, and the Resource for Genetic and Epidemiologic Research (RGE) on this project. Hill Air Force Base and UDEQ are providing information about the plume and agreements have been made to get residential history data from RGE. These data will be combined and standardized into a common projection. A geo-database will then be created and the project will move into an analytical process. The EPHTP staff will then map the locations using the geocoded data. Furthermore, EPHTP staff will collect all the census tracts within a fifteen-mile radius, which will strengthen the study by including all of the plumes in the area.

In addition, the EPHTP will employ the Rapid Inquiry Facility (RIF), a disease- and exposure-mapping tool developed by the Imperial College of London for use in the European Union (EU). The RIF will be used to look at Bayesian smoothing of the area rates and Bayesian approaches for the multivariate analysis. The RIF is intended to be a simple system with GIS linked directly into the database. EPHTP stakeholders using different spatially referenced datasets could easily access the system. For more information on RIF, see Utah EPHTP Newsletter Issue 3 or visit www.euroheis.org.

Currently, the EPHTP has received approval from the IRB (Institutional Review Board) to conduct this follow-up study. The first phase of the geocoding has been completed for the cancer cases. EPHTP staff have been working with RGE to finalize the details of the data exchange process between the two agencies and EPHTP staff are continue to work with CDC to obtain the RIF program from the Imperial College of London. To learn more about RGE, visit www.research.utah.edu/rge.

The goals of this pilot project are to expand the study itself by using different methodology and to incorporate new technology.

Update:
Utah Technical Workgroup



The UTW has been working on three activities. First, the workgroup identified the technical standards that will impact the EPHT Network, such as Health Level Seven (HL 7), Extensible Markup Language (XML), and Public Health Information Network (PHIN) Logical Data Model. Second, the workgroup discussed the data systems that are related with the Utah EPHT Network. The four data systems that have been discussed in the workgroup meetings are: Utah Cancer Registry, Ambient Database for Utah Air Quality, Utah Vital Record Data System, and DAQ Monitoring Database. The information gained from the data systems discussed in the UTW meeting helps define mechanisms of integrating, exchanging and linking environmental and health data. Lastly, the workgroup is focusing on the existing data models such as CDC's Public Health Conceptual Data Model (PHCDM), the Indicator Based Information System for Public Health (IBIS-PH) Data Model, and the National Electronic Disease Surveillance System (NEDSS) Data Model. These existing data models can help us develop the EPHT Program data architecture. For the next meeting, the workgroup will continue to discuss the data models of the systems related to the EPHT Network and also talk about the data model for the Utah EPHT Integrated Data Repository.

For more information contact Mei Xue, EPHTP IT Analyst, at (801) 538-6191 or email: mxue@utah.gov

Next meeting

September 2, 2004

10:00-12:00

UDOH, Room 114

If you have any articles, meetings, workshops, trainings, or other items of interest, please send them to Kori Gunn at kgunn@utah.gov by October 1, 2004

Utah Policy Workgroup

The UPW has been defining the various classes of EPHTP users. To define the EPHTP user classes, the UPW first began developing roles and responsibilities for the stakeholders. Developing the roles and responsibilities of the stakeholders will further help identify the unique information the stakeholders may need or want, the type of messages that should be developed, and determine the level of information accessible to different audiences of the EPHTP. Seven audience types were identified: Public, Media, Industry/Business, Legislature, Health Officer/ Public Health, Medical Service Provider and Research/ Academia. The workgroup narrowed the audience types to three levels of data access; basic, enhanced, and expanded.

The workgroup also discussed the development of an advisory board for the EPHTP. The workgroup established the mission and name for the EPHTP review board. The name will be the Environmental Review Board (ERB). The draft mission of the ERB is to review and approve the release of data. The workgroup is in the process of developing the purposes and process for the following topics: approval summary, scientific output, data requests and published guidelines. The workgroup will continue to populate the process of the ERB at the next UPW meeting.

For more information contact Kori Gunn, EPHTP Community Health Specialist, at (801) 538-6191 or email: kgunn@utah.gov

Next meeting

September 23, 2004

10:00-12:00

UDOH, Room 215

National EPHT network News

The CDC has formed workgroups to engage in issues common to all EPHT grantees and to ensure network development coincides with the vision and goals of the national EPHT initiative. The workgroup members consist of representatives from the CDC and each of the participating states, cities, and schools of public health. Following are updates from the Utah representatives on each of the workgroups:

Program Marketing and Outreach Workgroup (Utah representative: Kori Gunn)

The program marketing and outreach workgroup is to assist CDC and EPHT grantees in development and implementation of a program marketing and outreach strategy. The program marketing and outreach workgroup develops appropriate education and outreach materials that emphasize and support the goals, objectives, and timely promotion of the national EPHTP effort. The program marketing and outreach workgroup identified target audiences for the EPHTP. The workgroup then selected the high priority audiences for the EPHTP. Members in the workgroup divided into teams to develop a target audience profile. The profile will include; 1) research on current level of knowledge by audiences, 2) develop audience profile, 3) segment the target audience, 4) prioritize the target audiences, and 5) determine how to involve the target audiences. The workgroup will then identify various distribution channels, activities, and outreach strategies for promoting program information.

Standards and Network Development Workgroup (Utah representative: Mei Xue)

The Standards and Network Development Workgroup (SNDW) has worked with its contractor, Science Applications International Corporation (SAIC), to develop the EPHTN Vision Document. The objectives of this document are to 1) describe, at a high level, the function and purpose of the EPHT Network, 2) provide a profile of the stakeholders and users of the Network, and 3) outline the major features of the EPHT Network. The SNDW is also working on 1) the EPHTN Principles, which are tested to withstand scrutiny and become recommendations when completed, 2) EPHTN Technical Glossary, 3) GeoPrimer for Environmental Public Health Tracking, which is developed for planners, managers, and environmental-health tracking implementers to help explain basic geographic information technologies used in building EPHT Network, 4) Trading Partner Agreement Templates, and 5) Metadata Recommendations.

Products for Technology Group (Utah Representative: Mei Xue)

The University of California at Berkeley (UCB) organized the Products for Technology Group for the Western state grantees in the Environmental Public Health Tracking Program. The Group has focused on the Application Server as the topic of the Pulse of the system. The Application Server manages the flow of data and the presentation of the data as it flows between the clients and the database server. This group has identified different vendor products for Application Server, such as Apache Tomcat, IBM Websphere, and Oracle Application Server, etc. The Group discussed the critical issues with regard to the Public Health Information Network (PHIN) and decided that the demonstrations of products that are related with PHIN would be the next steps. The first product demonstration will be presented by Apelon, which is currently used by CDC to support the Vocabulary Services. Apelon provides terminology products and services that help healthcare enterprises create, maintain, and use standardized healthcare terminology.

National EPHT meeting will be held in San Francisco in October 2004. Submit any agenda items to EPHTP staff.

Western States' Meeting EPHT Network

The western states involved in developing an EPHT network include California, Montana, Nevada, New Mexico, Oregon, Utah, and Washington. As neighboring states, we share common priorities and challenges, and in the interest of sharing information and developing next steps for the network, we collaborated with the regional EPHT center of excellence, the University of California at Berkeley, to hold a western states EPHT meeting in Seattle on July 26-27, 2004. The emphasis of this meeting would be to tackle key issues through minimal presentations and ample discussion time, and propose the findings of the meeting as a starting point for discussions at the national EPHT meeting in October 2004.

The first session centered on "Planning Consortia and Stakeholder Involvement." Mimi Johnson of California gave a presentation of the experiences of their planning consortium, where they employed an integrated strategy that includes both "top-down" and "bottom-up" approaches; for local pilot projects, bottom-up approaches are indicated, whereas for national level issues, top-down approaches may be more effective. Whenever appropriate, existing forums were utilized, rather than expecting all stakeholders and potential partners to participate in a new committee convened solely for a specific purpose. Turnover in participants is a concern, particularly among non-governmental organizations.

States shared experiences in identifying and reaching the underserved populations. Underserved groups may be defined by age, gender, location, race/ethnicity, or social and economic status. Migrant farm workers are one such group that has been identified; it may be helpful to work with clinics that serve these populations. Communities may have a negative reaction to a proposed project that is "yet another study." It may be helpful to commit funding or resources and to ensure that the project results will be of value to the community. Another problem faced by states is engaging and involving Native American tribes in EPHT activities. Outreach to tribes needs to include culturally appropriate activities; this may mean more personal communication. It can be helpful to work with the state's Intertribal Council, an organization that has representatives of the various tribes. However, since the council may be distanced from individual tribes, it may be helpful to arrange for direct meetings in the tribal lands.

In the next session, attendees discussed the next steps for the Environmental Public Health Indicators (EPHI) project. Attendees agreed that there must be a balance in the use of EPHIs to address local needs versus the use of EPHIs across a region or nationally so that comparisons between areas are possible. It is important to balance the "theoretically-best" indicators and the best available measure that can be implemented over a wide area. All states need to collectively decide whether further development of indicators is going to be useful in the context of the EPHT. If indicators are deemed useful, states need to develop criteria for appropriate indicators and plan the steps to proceed. Since this is a decision that will affect the entire EPHT network, the issue needs to be discussed during the national meeting in October.

Three presentations were given at the "Data Linkage Projects and Progress" session. Michelle Wong of California shared experiences with technical and stakeholder issues in the Alameda County Pilot Project looking at traffic, asthma, and birth outcomes. Strategies in identifying stakeholder needs, evaluating whether the pilot project design will meet those needs, and design and implementation of a dissemination plan were discussed. New Mexico's Len Flowers and California's Craig Wolff presented on their state's respective projects dealing with drinking water. Both presentations identified the complexities involved in integrating monitoring data with health effects data; explained the methodology used for estimating human exposure to contaminants; and shared the challenges and successes involved in those methodologies. Attendees agreed that the strategies and/or legislative actions required to track water contaminants within water system distribution areas necessitate involvement of other federal agencies, such as the EPA. As such, attendees strongly supported pursuing the issues on drinking water in the national meeting in October with the appropriate parties in attendance.

In the "Data System Projects and Progress" session, Brett Holtz of Washington discussed the state's approach to network architecture and electronic reporting options for EPHT and related surveillance. From Utah, Gambrelli Layco shared the progress of Utah's Cancer Query Module being developed in collaboration with Utah's Indicator-Based Information System. The former presentation presented strategies in collecting data, whereas the latter presentation discussed one strategy to disseminate data.

In the final session, a group discussion around the topic of "Defining the Next Steps for the EPHT Initiative" was held. Amy Kyle of UC-Berkeley summarized the recommendations proposed and issues raised over the course of this meeting. Several action items were identified and the western states planning committee agreed to reconvene to finalize the findings and present them to the planning committee for the national meeting in October.

For further details on this very productive meeting, contact Gambrelli Layco at (801) 538-6191 or glayco@utah.gov

In the next EPHTP Newsletter:

1. *Updates from the Technical and Policy Workgroups meetings.*
2. *Updates from the Planning Consortium Meeting.*
3. *Updates on pilot projects*

Utah Department of Health

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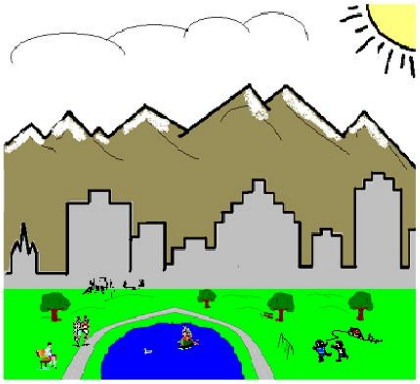

Environmental Public Health Tracking Program
Utah Department of Health

EPA Region 8 Children's Environmental Health Summit

A conference for health, environmental & education professionals

When: October 7 & 8, 2004

Where: Salt Lake City Main Library, 210 East 400 South, Salt Lake City, Utah

Register: Online registration will be available at www.epa.gov/region8/humanhealth/children/summit

Check out the EPHTP Web board
https://ephtp.intranets.com